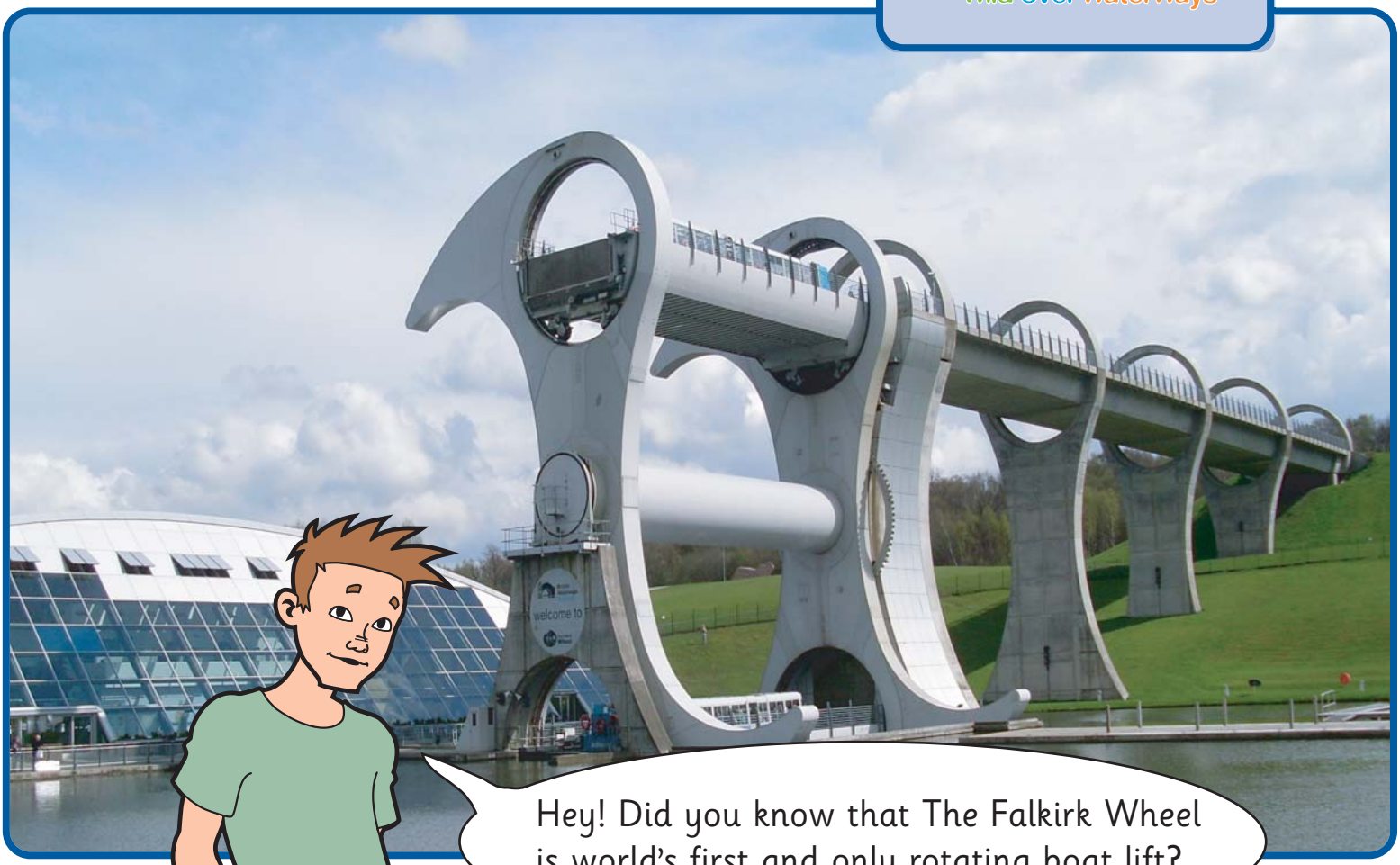
The Falkirk Wheel

Fact File

wild over waterways



Hey! Did you know that The Falkirk Wheel is world's first and only rotating boat lift?

www.wow4water.net

The Inland Waterways Association

British Waterways

The Waterways Trust

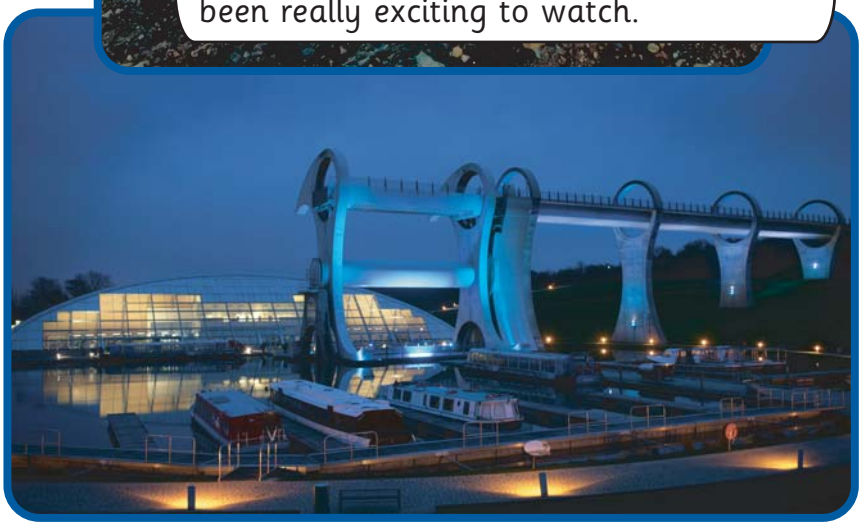
Why was The Falkirk Wheel built?

The Falkirk Wheel was built to re-connect two canals, the Forth & Clyde Canal and the Union Canal. It was built as part of the Millennium Link, which was a £84.5 million project to restore the two canals. The wheel was an important part of the project and makes it possible to travel by canal all the way from Edinburgh to Glasgow and on to the coast. The wheel was completed in 2002 and was opened by the Queen. It stands at an impressive 35m tall.

Have the canals ever been linked up before?

Yes! The canals were once joined by a flight of 11 locks. These were closed in 1908 and over time were filled in and built over. It took a long time to go up or down these locks which meant boats were held up here using the locks for around half a day. This is one of the main reasons that when the canals were going to be linked again a boat lift was chosen.

The construction of the wheel must have been really exciting to watch.

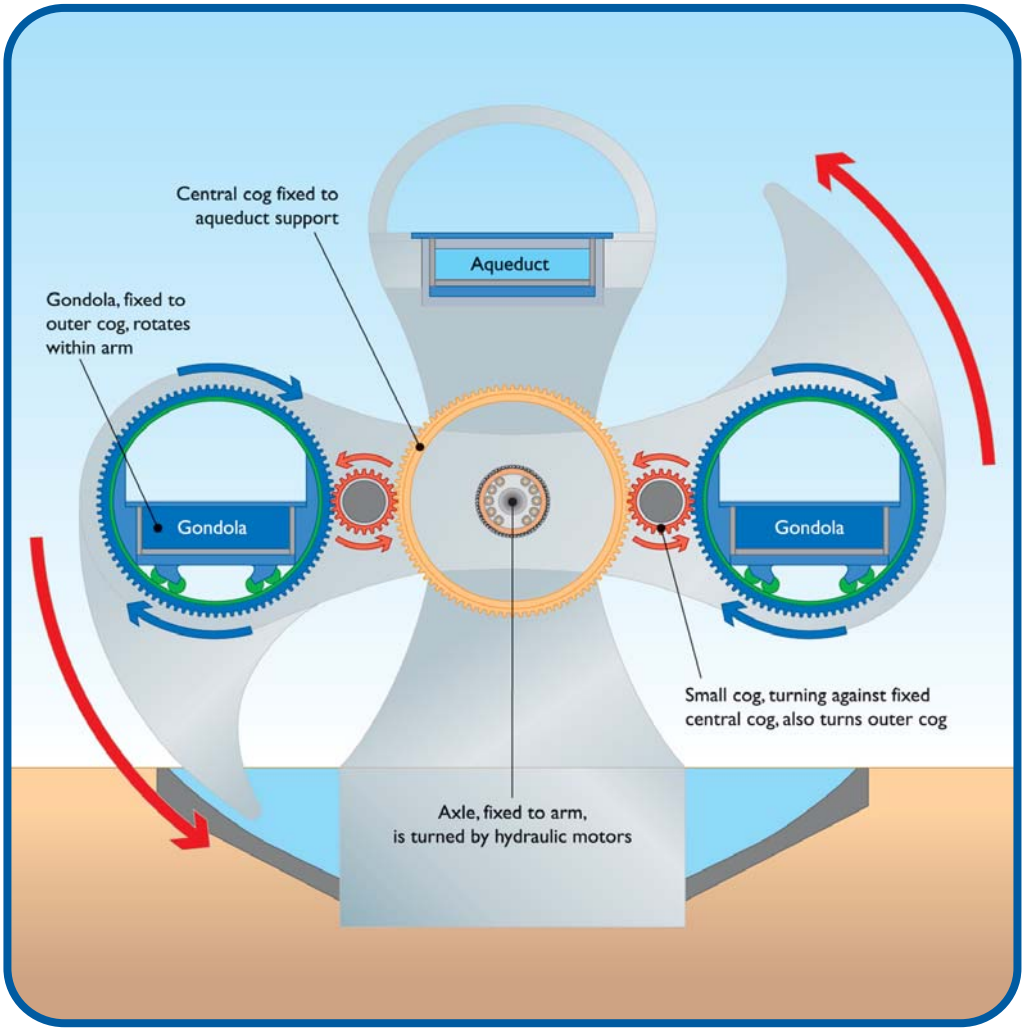


Why a wheel shaped lift?

Lifts are a much quicker way of transporting a boat up or down and have been used before, in other places with other designs. Many designs were considered for the lift but the people working on the project and the engineers thought this one was the best and would work well. It is the only rotating boat lift in the world and uses very little power to work it. It also doesn't waste water, unlike locks, so is energy efficient.

Always remember to stay **SAFE** near water - **S**tay **A**way **F**rom the **E**dge

How does the wheel work?


Central cog fixed to aqueduct support
Aqueduct
Gondola, fixed to outer cog, rotates within arm
Gondola
Gondola
Small cog, turning against fixed central cog, also turns outer cog
Axle, fixed to arm, is turned by hydraulic motors

The 2 gates lie flat to allow boats into the gondola.

Water is pumped out from behind the gates to create 2 seperate areas of water.

The gates rise to keep in the water in the gondola.

The wheel is now activated from the control room and the cogs are turned using electricity. It turns 180° so the top gondola is now at the bottom and the bottom gondola is now at the top.

The water can now run between the gates and the gates lowered to allow the boats to sail out.

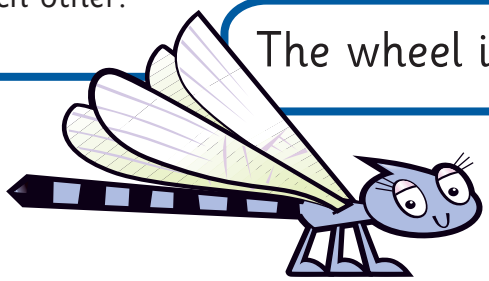
Always remember to stay **SAFE** near water - **S**tay **A**way **F**rom the **E**dge

Fascinating Facts

The design, which was worked on by 20 engineers and architects, is based on Celtic axes.

The Falkirk Wheel is 35m high; which is the same as 8 double-decker buses on top of each other.

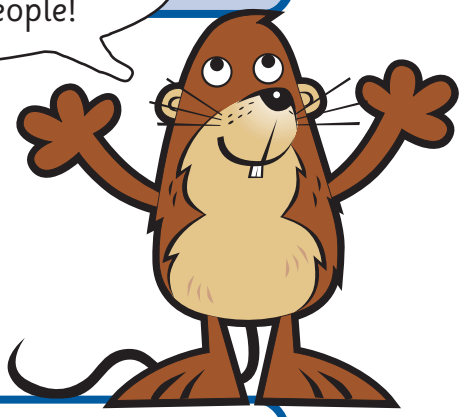
The wheel is held together by 15,000 bolts.



Glad I didn't have to screw them all in!

The wheel was constructed in 5 days by a huge crane. There were up to 1000 construction workers around during this time.

I'm surprised they found room for the wheel with all those people!



The wheel has become a very recognisable structure in Scotland, appear on a bank note.

Strange but True

In the 1800's people drank water from the canal.

Goldfish used to live in the Forth & Clyde Canal because the water was warm after being used in the factories.

www.wow4water.net

Why not take a trip to The Falkirk Wheel? You can find out more about visiting and download a trail from **www.wow4water.net**